Human Interaction: A key to managing disruptive behavior in dementia.

Though the diagnosis of dementia is characterized mainly by the nature and degree of intellectual impairment, it is often the behavioural disturbances which hinder the quality of life of both the individual with the dementia and the people who care for him or her (Cohen-Mansfield, 2001; Opie, Rosewarne, & O'Connor, 1999; Rapp, Flint, Herrmann, & Proulx, 1992). Regardless of the actual prevalence, it has been reported that, over the course of the disease, 90% of people suffering with dementia will experience one or more behavioural problems (Patterson et al., 1999). The goal of any intervention targeting the elimination of disruptive behaviours accompanying dementia is to address the underlying cause. These interventions may fall into one or several critical areas: caregiving practices, medical treatment, and changes to the social and/or physical environments (Mahoney, Volicer, & Hurley, 2000). Interventions studied over the years have included pharmacological and nonpharmacological approaches, with varying degrees of success (Day, Carreon, & Stump, 2000). Although psychotropic medications tend to be prescribed for behavioural problems, there is little evidence for their effectiveness (Patterson et al., 1999). According to the Canadian Consensus Conference on Dementia, nonpharmacological approaches such as environmental changes should be explored first prior to the use of medication (Patterson et al., 1999).

Since the mid 1980's, the use of the physical environment as a means to manage behavioural problems among people with dementia has gained greater acceptance (Forbes & Strang, 1997; Lawton et al., 1998). The use of the physical environment and more recently the social environment (Morgan & Stewart, 1997; 1999) has become a major treatment modality recommended by professional groups dealing with behaviour problems and the elderly. Despite such interest, there has been little systematic research on the effects of specific environmental features on behaviour problems. A large reason for the paucity of research is the lack of control researchers have over architectural designs and their implementation as well as methodological problems (e.g., difficulties in finding appropriately matched control groups and small sample sizes). Overall, it would appear that social-physical environments that lessen an individual's sense of security, familiarity, and level of personal control result in more problematic behaviours as residents experience difficulties in adjusting and interacting with their environments. It is with this major assumption, the reduction of behavioural problems through the use of non-institutional design, that special dementia care units have been designed.

The data presented in this paper are part of a larger multi-center and mixed-methods study linking architectural design, institutional policies and regulations, and social environments with the management of disruptive behaviour in dementia. The paper reports on discussions (nominal groups) held with staff and family caregivers on their perceptions of the impact of physical and social environments in facilitating or hindering the management of behavioural problems in long term care (LTC) facilities. The group results are triangulated with data from direct observations of nineteen individuals with dementia living in LTC units.

Methods

In order to explore the perceptions of the impact of the physical and social environmental features on behaviour and quality of life, fifteen (15) discussion groups were conducted with

families (N = 45) and staff (N = 59) from eight (8) dementia units across Canada (Ottawa, Toronto, and Calgary). Seven discussion groups included family members (6-7 per group) and eight discussion groups involved staff participants (7-8 per group). Family members were individuals who had regular contact with the resident (at least once per week) and frontline staff included only those who had been working on the unit for more than six months.

Through discussions, all groups listed the social and physical environmental features which they believed most influenced the management of behaviors in LTC for individuals with dementia. Once listed, participants were requested to individually vote on the most important elements that first, **improved** quality of life for residents by diminishing challenging behaviours (i.e., facilitators) and second, **hindered** quality of life or encouraged problematic behaviours in the residents (i.e., obstacles). Analysis of these items involved their regrouping according to themes by the investigators, which were then operationally defined and reclassified. For the purposes of this presentation, focus will be placed on those elements which addressed the interaction between residents and residents and staff (i.e. the social environment).

As a means of obtaining a second source of data to assist in understanding these issues, this time from the perspective of the resident, 19 residents were observed in four dementia units. Each was videotaped for approximately 20 minutes either during a morning activity or during the "sundowning" period towards the end of the day. While one researcher videotaped, another took fieldnotes and recorded her observations while on site. All videotapes were transcribed and analyzed using the qualitative data management software Atlas.ti™.

Results and Discussion

On average, groups identified over 30 elements in the social and physical environments which influenced behavior. Each member of the nominal group identified and ranked the 10 most important elements from their respective lists. These were subsequently collated and a list of the 10 most important elements for each group was obtained. All groups combined, the ten most important themes that participants felt favorably influenced the management of behaviour were (1) the approach of the staff, (2) the ability to offer individualized care, (3) the existence of a home-like environment, (4) the existence of general activities and stimulation, (5) having institutional rules that are flexible, (6) proper staff training, (7) staff consistency, (8) having a high staff to resident ratio, (9) the presence of music and (10) privacy. Of these ten, at least six involve the way the staff interacts with the residents.

Likewise, the ten most important themes that were felt to negatively influence behavior were (1) *Low* staffing levels, (2) *High* noise levels, (3) *Reduced s*taff continuity, (4) *Inflexible* rules, (5) Mixing residents with different needs, (6) Physical barriers, (7) *High* number of residents, (8) *Unwanted* resident to resident interaction, (8) *Changing* temperatures. As with the facilitators, many of these factors involve human interactions as expressed by the way residents and staff interact.

The observational data yielded information on these interactions from the perspective of the resident. Many residents did indeed seem to take notice of their social environments despite the fact that they were in advanced stages of dementia and many had significant difficulties

expressing themselves. On certain occasions, residents seem to "shut out" their social environments by closing their eyes and this was most apparent in less ambulatory residents. In terms of conflict resolution, staff numbers appeared too low to deal with both resident-to-resident interactions and job tasks. Hence, communication needed to be as effective and efficient as possible. Conflict often seemed to stem from residents invading other residents' personal space. At times, residents wandered towards others to initiate "nonverbal conversations" and at other times, they appeared to be sitting, watching life go by, somewhat like patrons in an outdoor café.

Conclusion
Although some priority areas mentioned by staff and families were related to the physical environment, most of them were linked to the human interactions between staff, family members and residents. Observations of residents support the importance of human interaction as a need to maintain a sense of meaning and a level of personal control over their lives.

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